

Scaling Up HIV Prevention During Disruptions: Lessons from COVID-19 and the War in Ukraine

Georgia Implementation Fellowship Training
Summer Bootcamp – July 2024

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Objectives

1. Using an implementation science lens, to review methods for scaling up HIV prevention using medications for opioid use disorder.
2. To describe how the NIATx model is adapted to a low- and middle-income context like Ukraine to facilitate scale-up of medications for opioid use disorder.
3. To understand how implementation disruptions, like the COVID-19 pandemic and the war incited by Russia, provide opportunities for scale-up of HIV prevention.

Acknowledgements – it takes a village!



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for Public
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– Ben Niki



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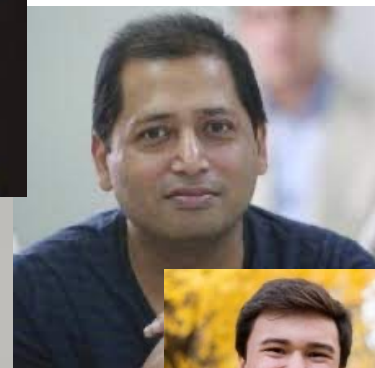
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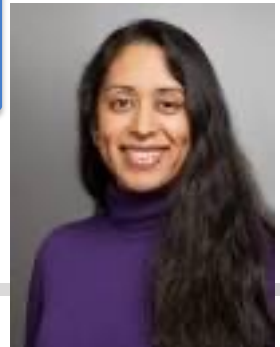
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Yale SCHOOL OF MEDICINE

– Jack Stone

Implementing HIV Prevention in Ukraine

- The evidence-based intervention / practice / innovation is **THE THING** (e.g., ART, PrEP, OAT)

OAT

- Implementation strategies are the stuff we do to try to help people/places **DO THE THING** (e.g., facilitate, mHealth, rapid start ART)

NIAT_x

- Main implementation outcomes are **HOW WELL** we **DO THE THING** (e.g., close the implementation gap or scale up)

Scale-up

- Courtesy Geoff Curran

Implementation Science Pragmatist

Better!

Faster!

Cheaper!

Forsberg K & Mooz H, Center for Systems Management, 1998

Integrated Promoting Action on Research in Health Services (i-PARiHS) Implementation Framework

Study findings mapped to the i-PARIHS framework

CONTEXT – key findings

Contextual factors in primary care that influenced implementation:

- Practice drivers and priorities, including needs of the population
- Restricted resources and capacity
- Policy and regulatory environment
- Service and system design
- Staffing model
- Culture (leadership, hierarchy, attitudes to change)
- Time and 'headspace' to consider evidence-based service provision and implement change
- Patient demand
- Osteoarthritis as a 'low priority' condition

INNOVATION – key findings

A key motivator to implementation planning due to:

- Whole practice approach to training
- Opportunity for reflection and feedback within training
- Flexibility to 'fit' with local context
- Maintaining practice equipoise while benefitting management of other LTCs
- Addressed a range of priorities and drivers
- Facilitated a shift in perspectives regarding OA management
- Combines and aligned research evidence with practice-based knowledge



FACILITATION – key findings

By individuals:

- Active, passive or 'instinctive'
- Individuals did not always recognise their role in mobilising knowledge, including patients
- Optimum timing occurred immediately at the end of a trial

By an interdisciplinary team:

- Academic links fostered credibility, trust and leadership
- Knowledge of primary care context was important
- Individuals within the team acted as boundary spanners across multiple overlapping knowledge networks
- Key actions were to support the 'work' of implementation with practical resource

RECIPIENTS – key findings

- Lay or professional (e.g. patient participation groups, public community groups, patient and public involvement and engagement groups, general practice teams)
- Recipients as facilitators – patients and staff with boundary spanning roles influenced implementation
- General practice staff needed time for reflection and team collaboration to engage with the innovation

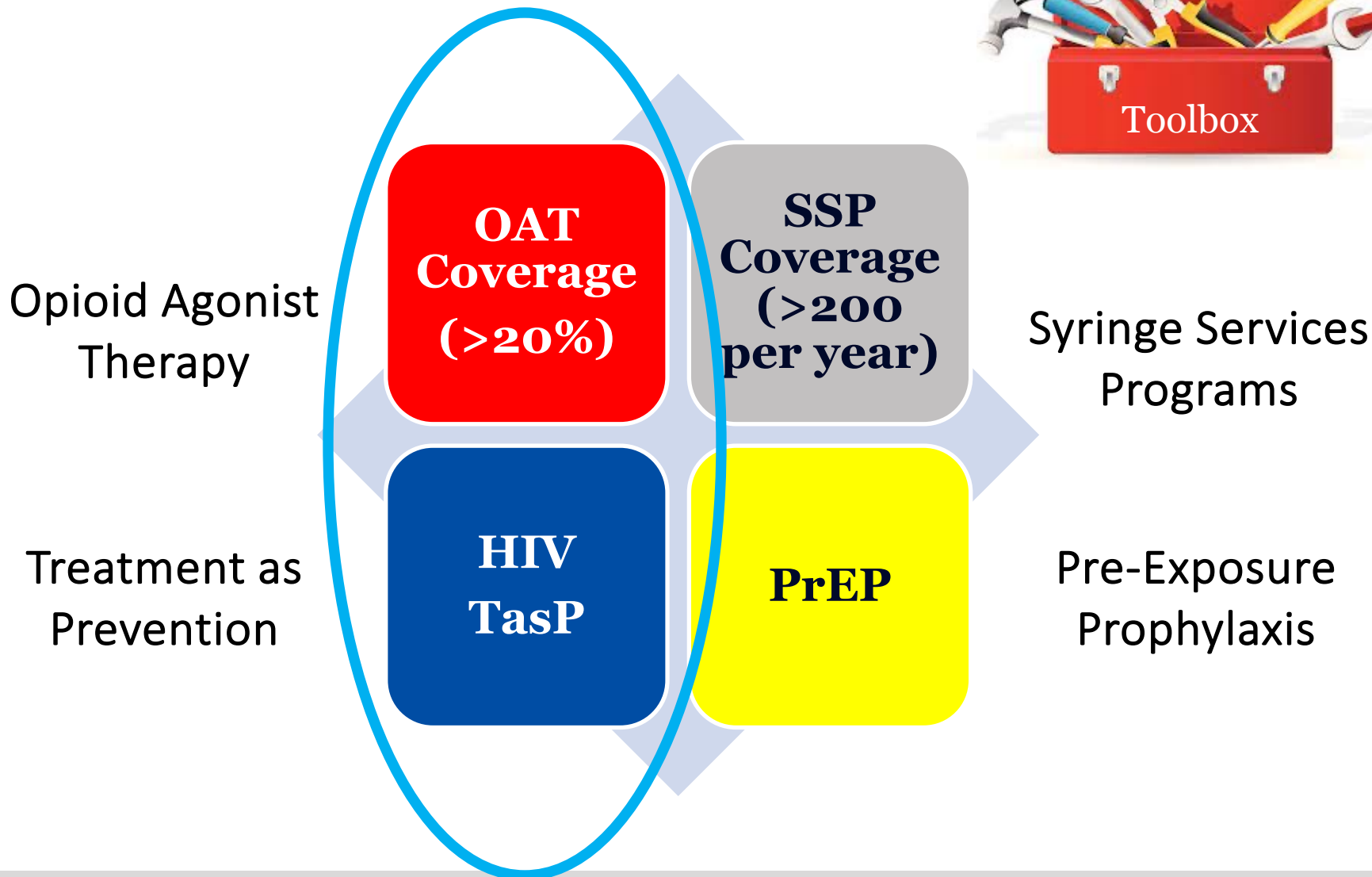
Evidence

Innovation of the EBP (OAT)

OAT is the most effective and cost-effective HIV prevention strategy for people who inject drugs!



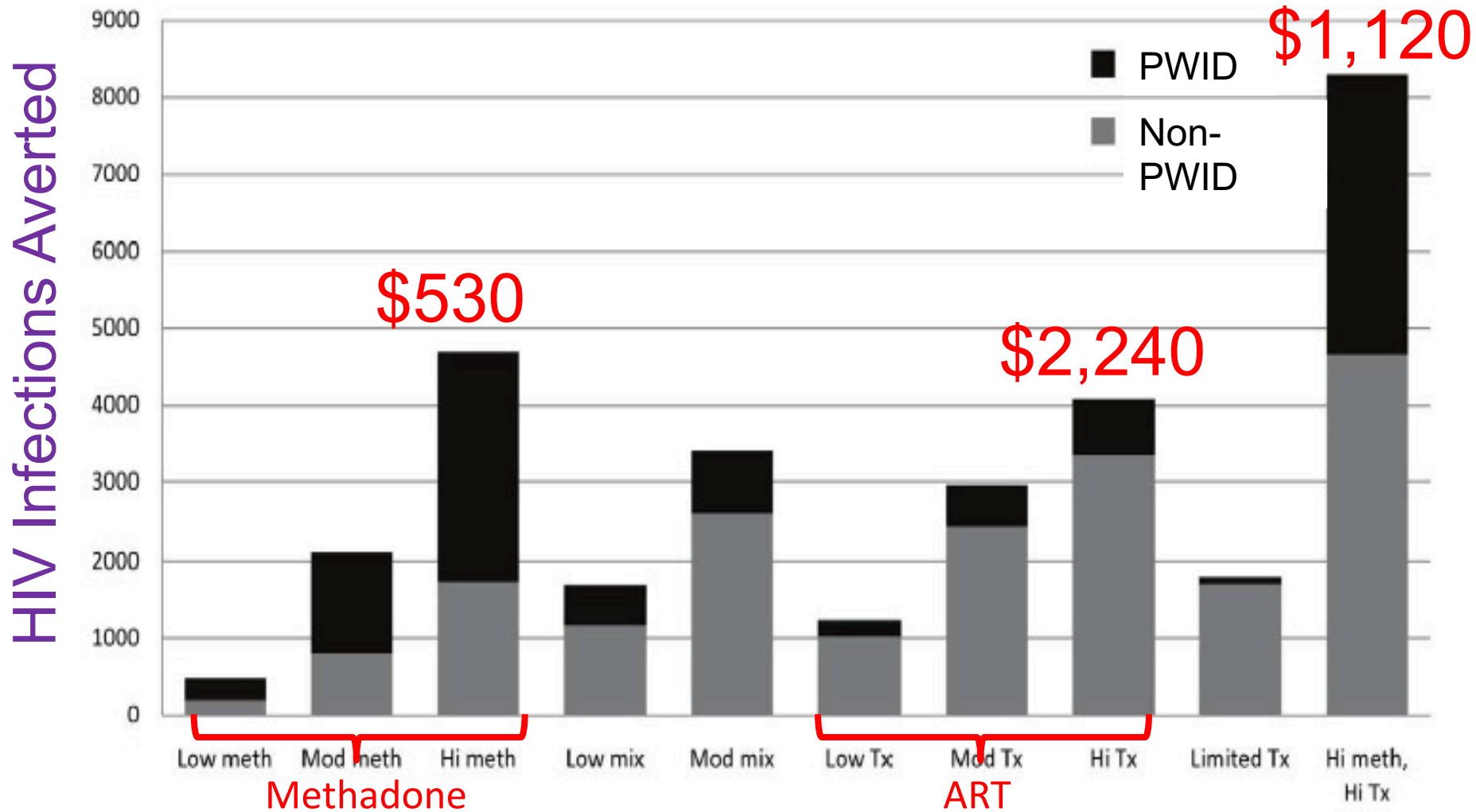
Evidence-Based Strategies to Prevent HIV Transmission in PWID



Opioid Agonist Therapies (OAT)

- 22 RCTs and multiple systematic reviews
- Methadone and buprenorphine:
 - Reduces injection (90% v 11%) and transmission of HIV (59%) and HCV (54%)
 - Increases engagement in HIV care along the HIV care continuum
 - Reduce opioid use and retention (72% vs 9%)
 - Reduces overdose (3-fold), death and crime
 - Increases employment, HRQoL, and social functioning
 - Very cost-effective

Preventing HIV (Ukraine): OAT and ART (TasP)



Context

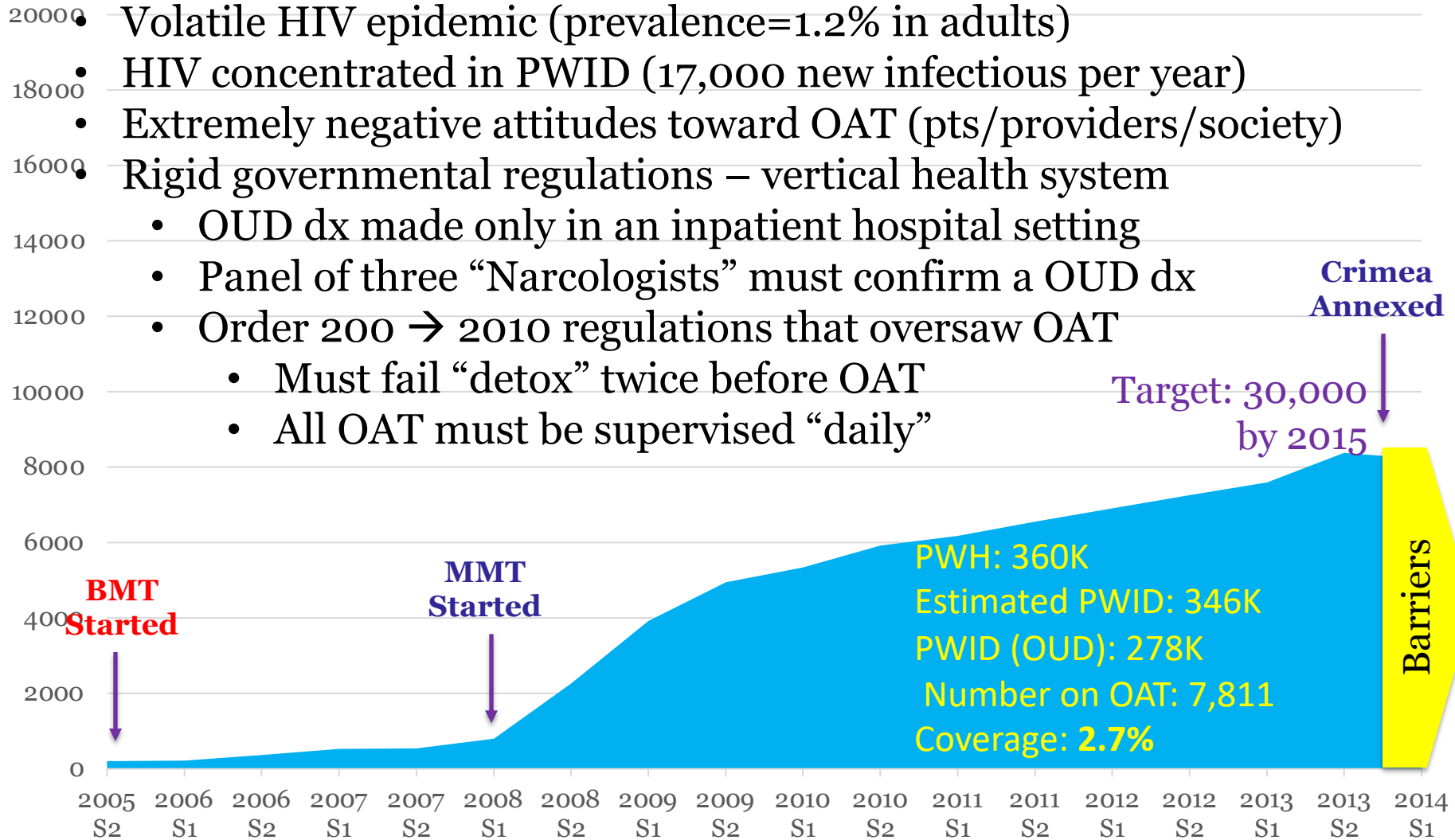
Individuals, clinics, healthcare system, and policies



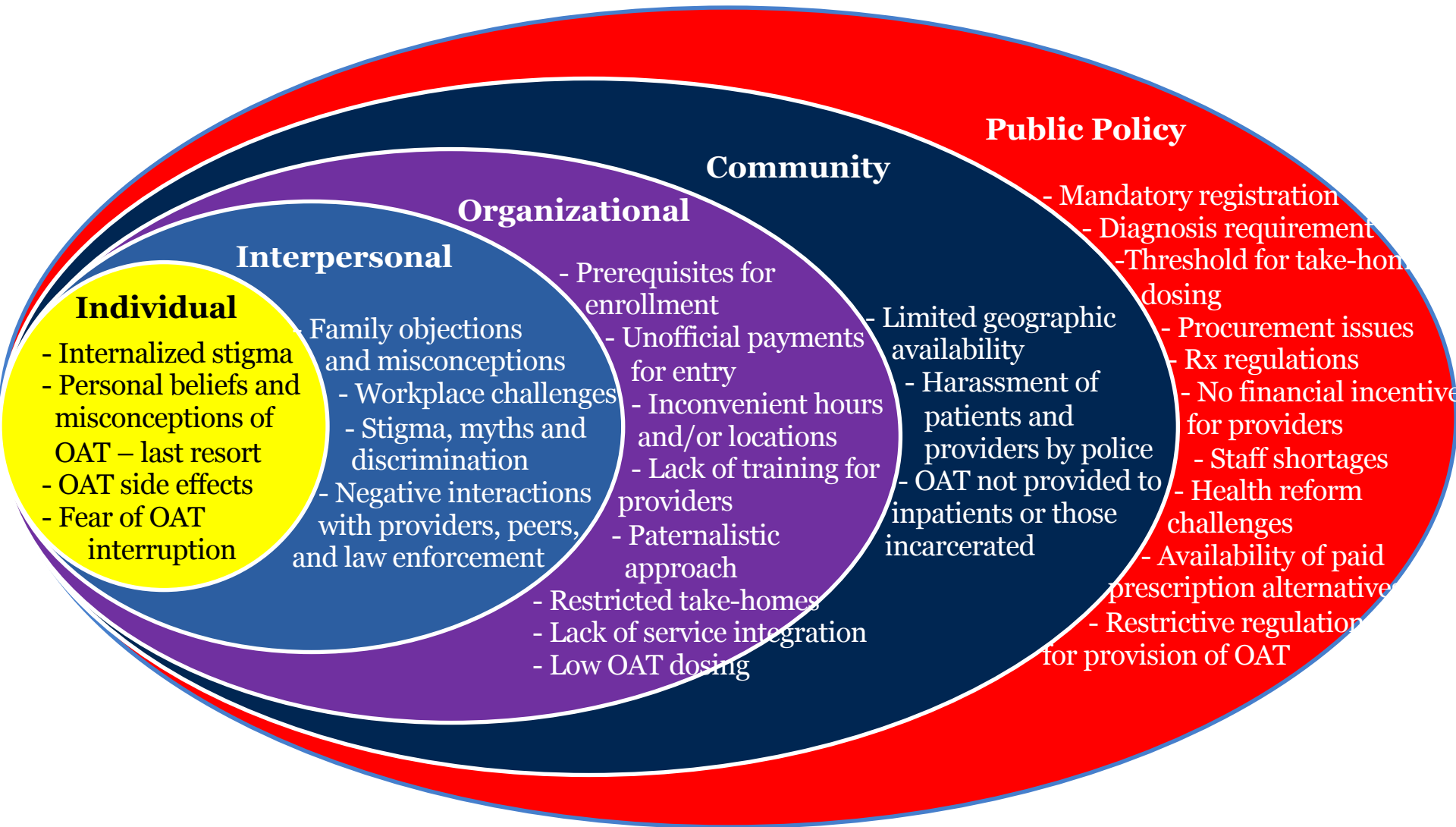
The Story Begins (2004) – To Introduce OAT



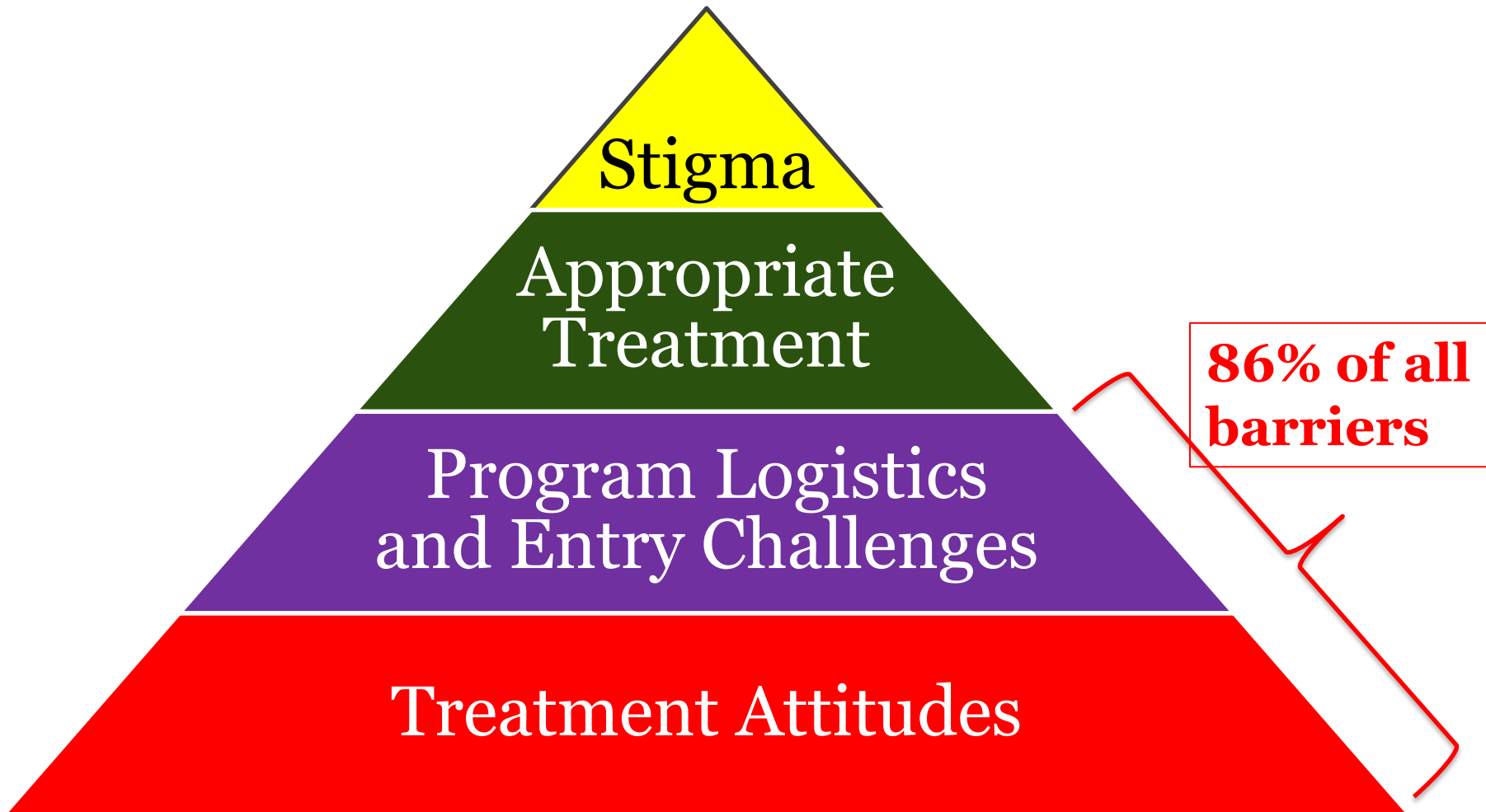
OAT Scale-up in Ukraine



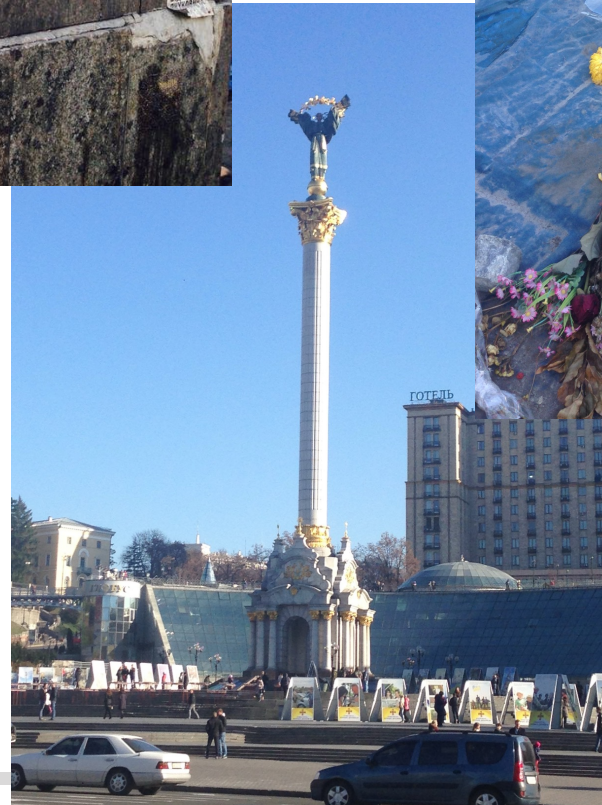
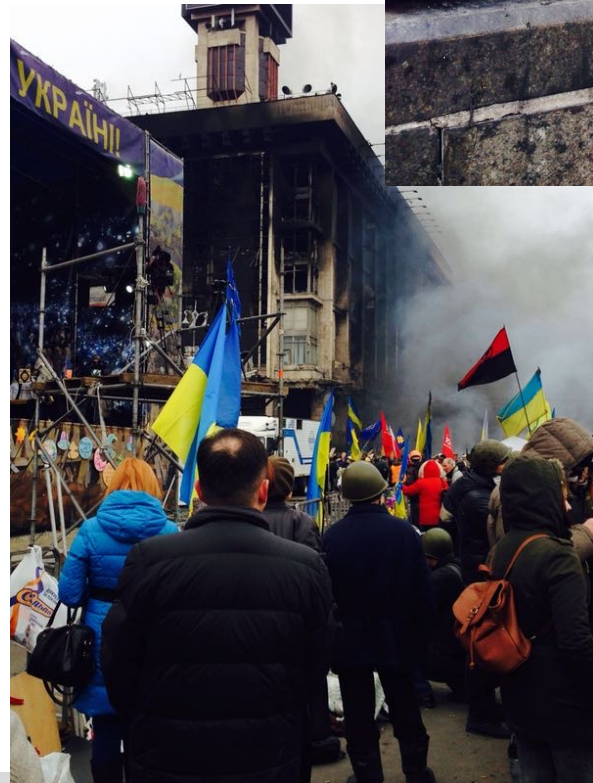
Socio-Ecological Model to Understand the Implementation Context – Landscape Analysis



Ranking Barriers to Entering and Remaining on OAT *Item Response Theory*



First Russian Invasion – March 2014!

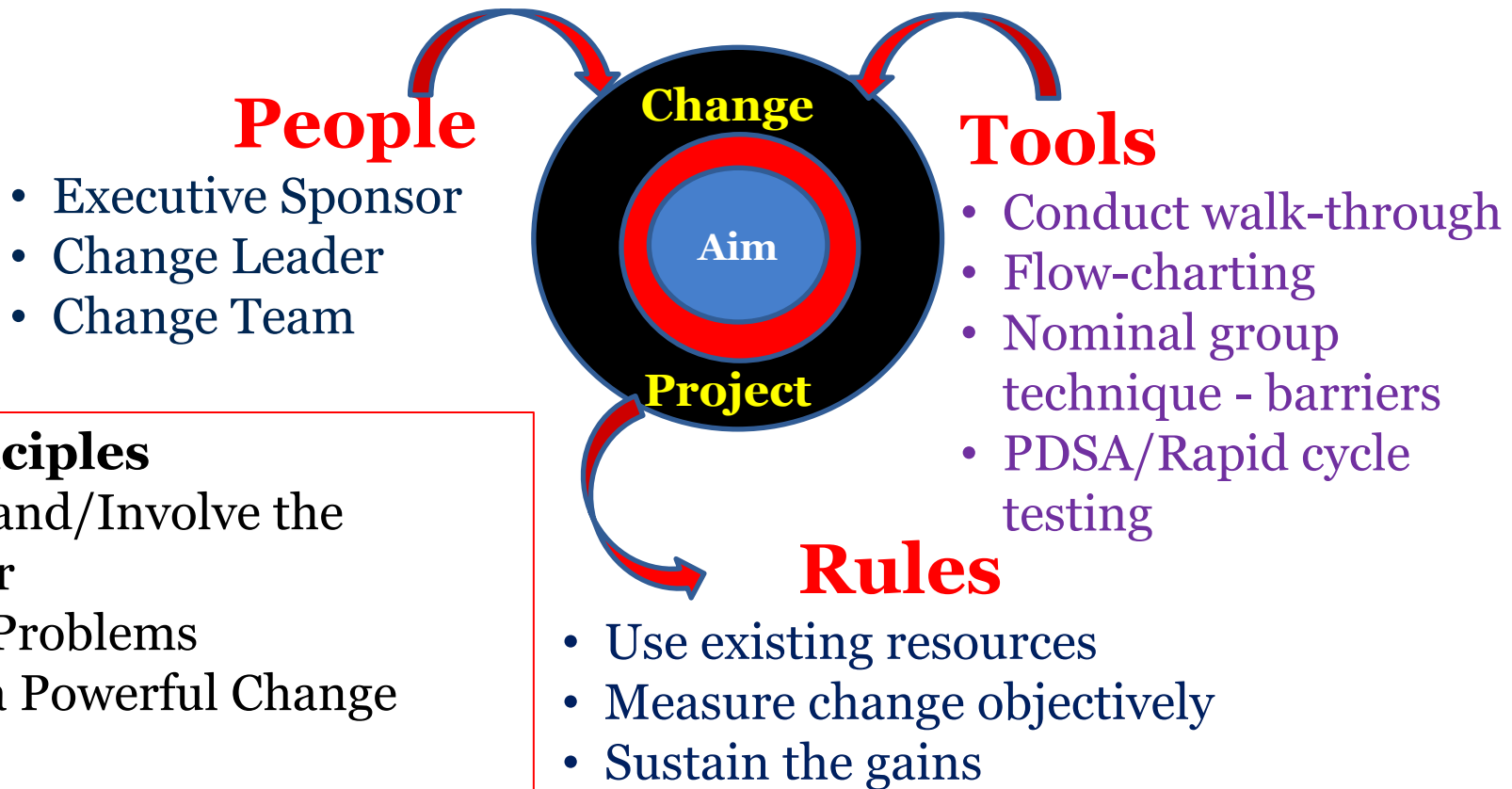


Facilitation (Coaching)

NIATx: A bundle of implementation tools that include expert facilitation (coaching) and quality *process* improvement specifically for behavioral healthcare settings to improve access and retention in treatment



The NIATx Model: Principles & Assumptions



Five Principles

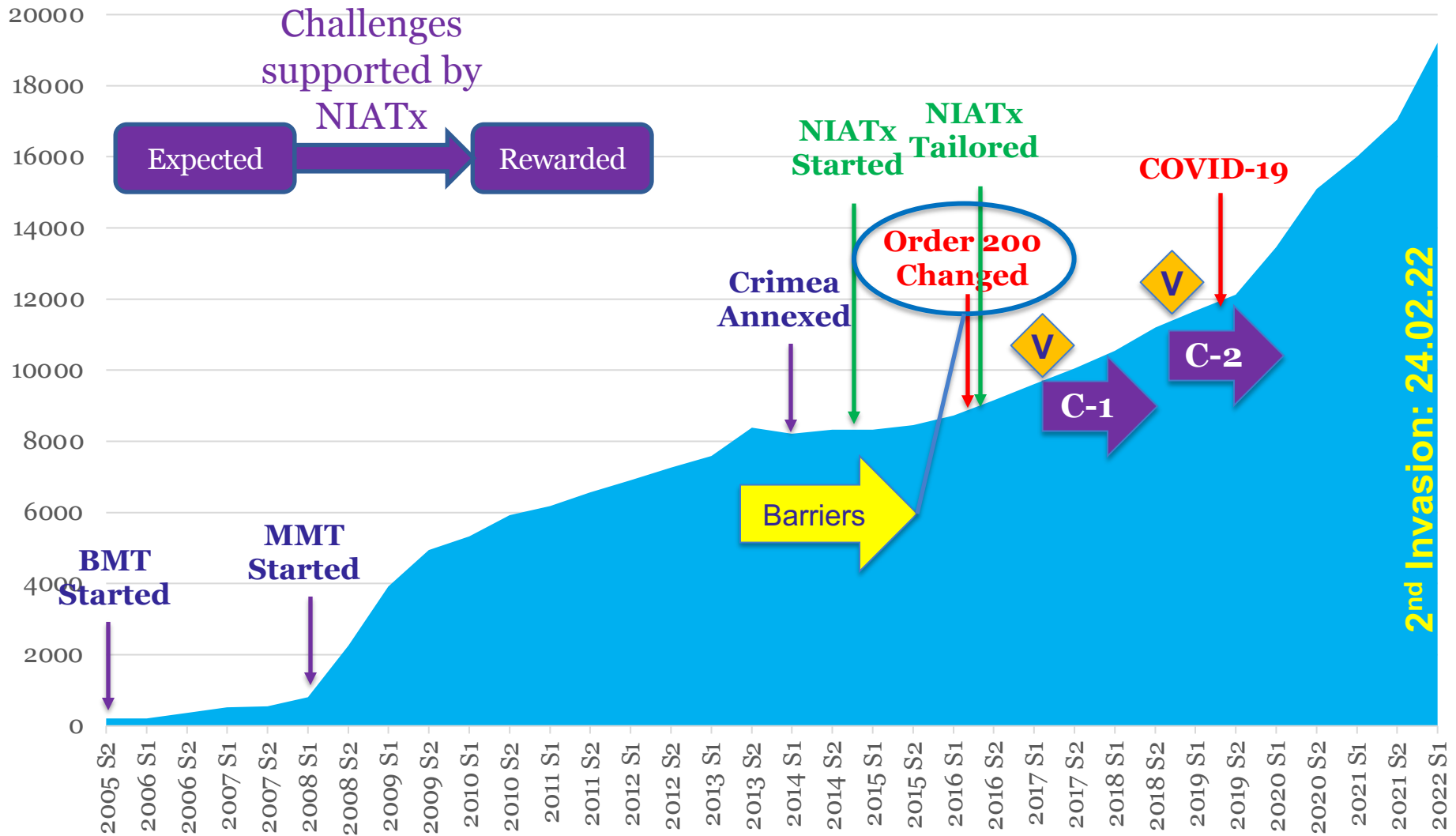
- Understand/Involve the customer
- Fix Key Problems
- Choose a Powerful Change Leader
- Get Ideas from Outside the Organization
- Use Rapid-Cycle Testing

See: www.niatx.net

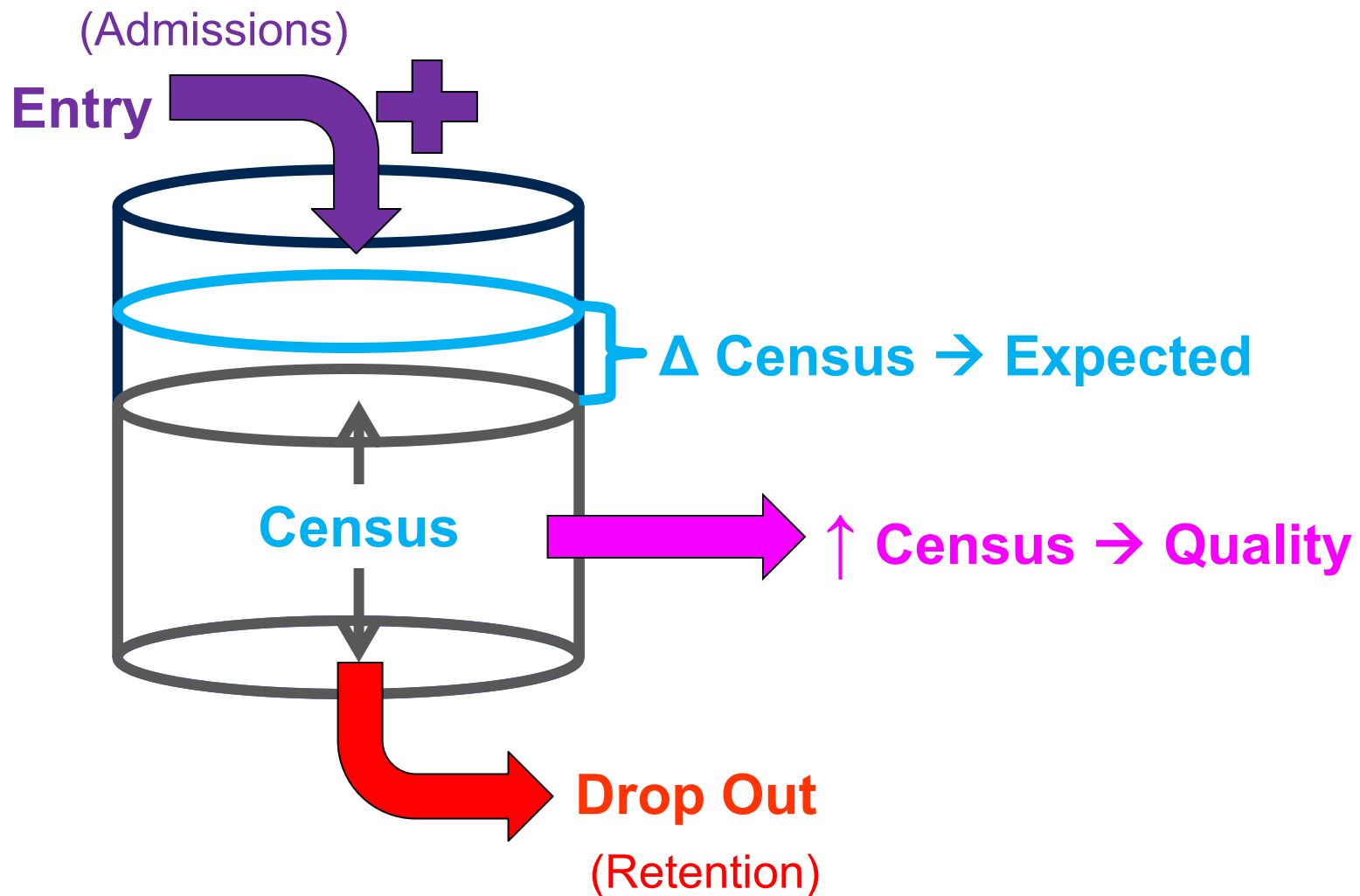
NIATx Learning Collaborative



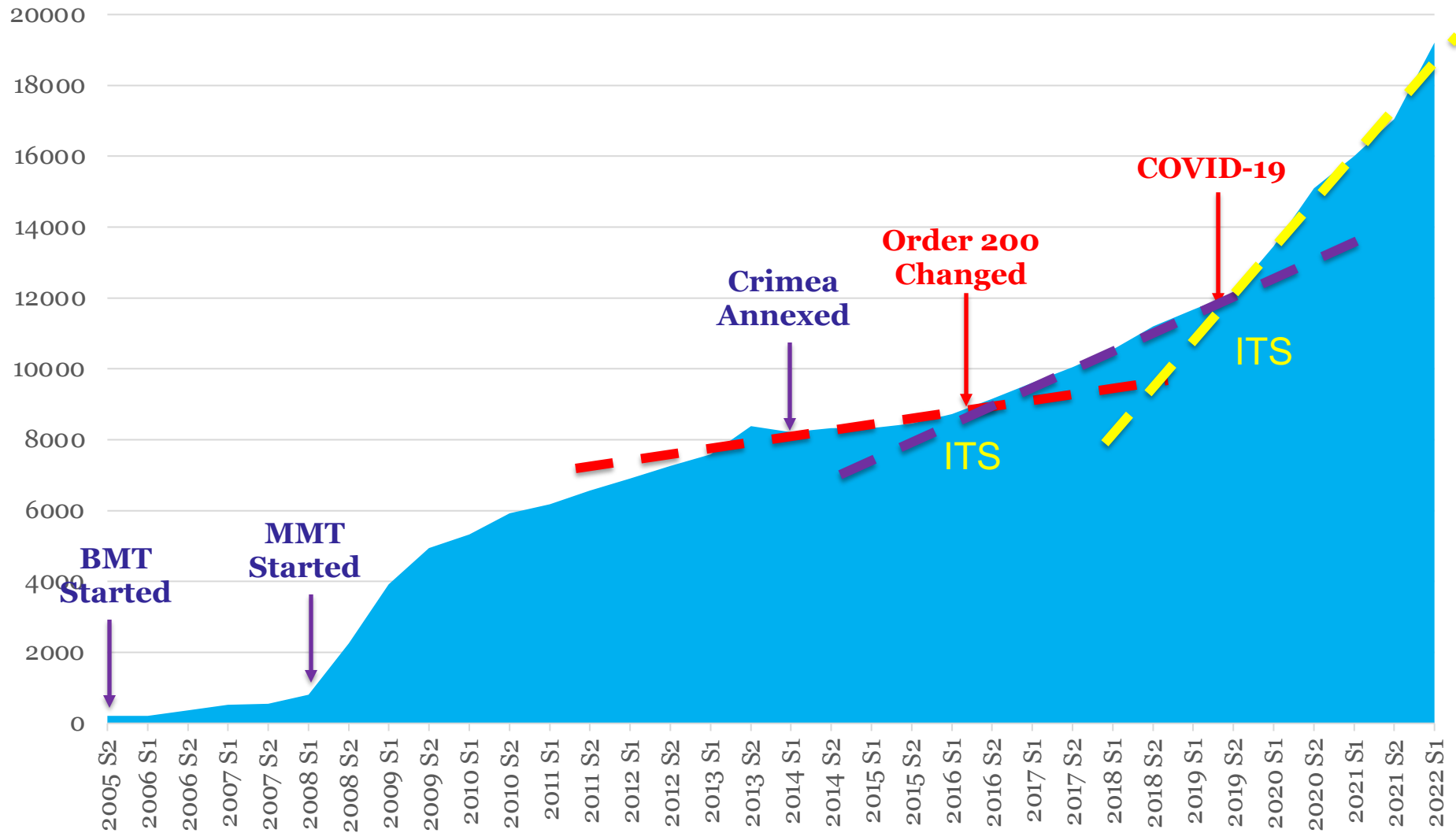
OAT Scale-up in Ukraine



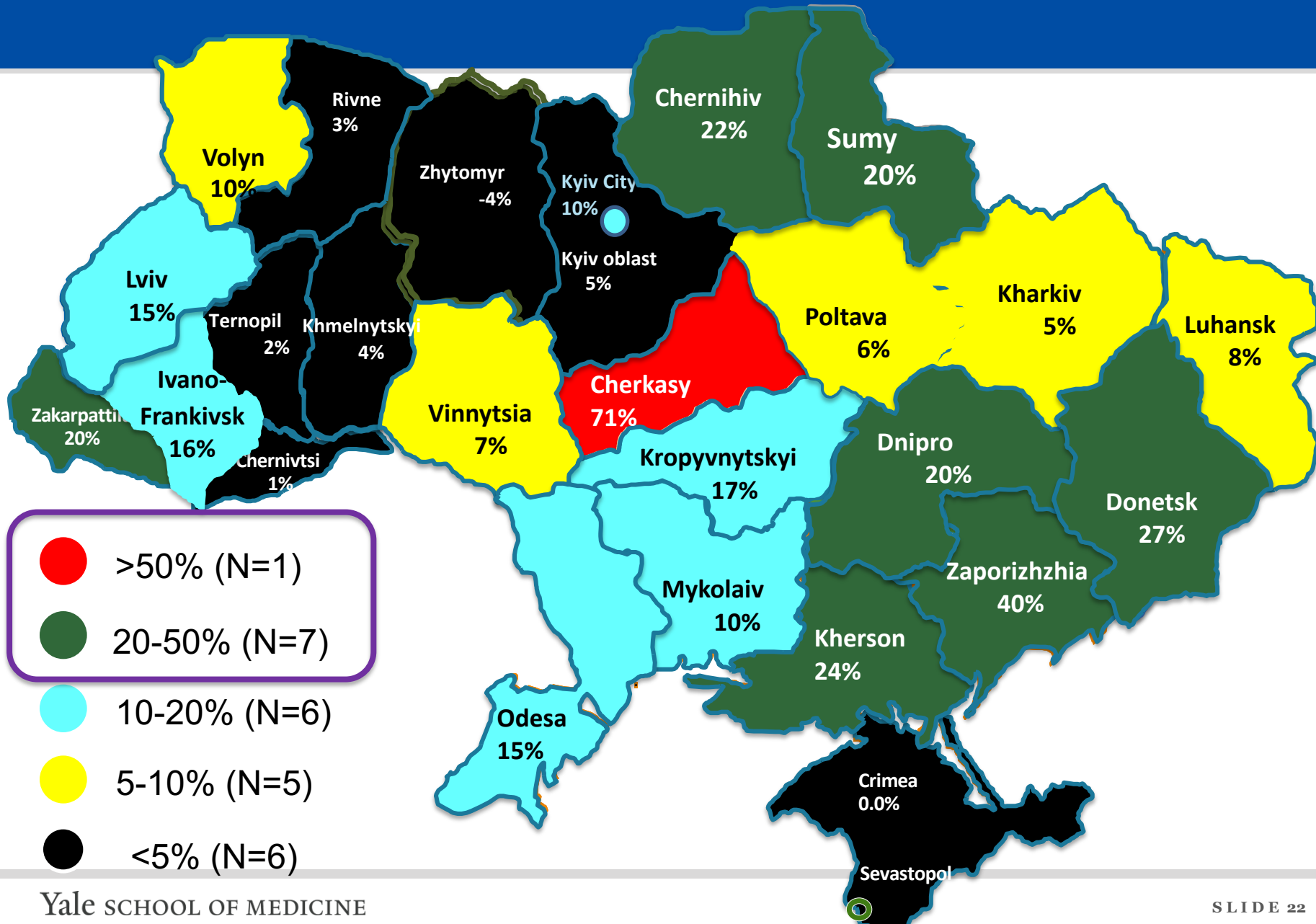
OAT Scale-Up Conceptual Model



OAT Scale-up in Ukraine: Order 200, COVID-19 and War as Implementation Disruptors



Challenge 1: Scale-Up Expectations – 20%



Interrupted Time Series Based on Three Disruptors

- **Change in Order 200 (November 2016)**
 - Based on landscape analysis and early promising practices
 - Removed 2 failed “detox” attempt
 - Allowed take-home dosing if stable for 6 months
 - Allowed prescriptions → private clinics emerged
 - Allowed treatment outside specialty care settings
 - Primary care clinics
- **COVID-19 (March 2020)**
 - Accelerated transfer to take-home dosing (up to 10 days)
- **Russia’s Second Invasion of Ukraine (February 2022)**
 - Further acceleration of take-home dosing (up to 30 days)
 - Rapid shifts in drug use, OAT and internal displacements

Uncovering the “Secret Sauce” with NIATx in the Ukrainian Context

- Regions differed markedly at baseline and in their response
- Highly vertical system: Chief Narcologist → Executive Sponsor
 - Measured their participation in quarterly meetings (vs their delegate)
- Not invented here syndrome – mistrust of ideas from outside
 - Participation in stimulus lectures that introduced new ideas (dosing, BASIS-24, demand characteristics, low threshold entry, take-home dosing)
- International visits (N=2: USA to see implementation outside Ukraine)
 - Trip 1: hand-picked leaders with documented early success (innovators)
 - Trip 2: selected based on meeting 20% scale-up challenge
- Collaboration climate (COPAN-3)
- Independent implementers – “risk takers”
 - Promising practices → linkage to jails, private/governmental clinics, home delivery, primary care clinics

Development of Latent Classes by Regions (N=25)

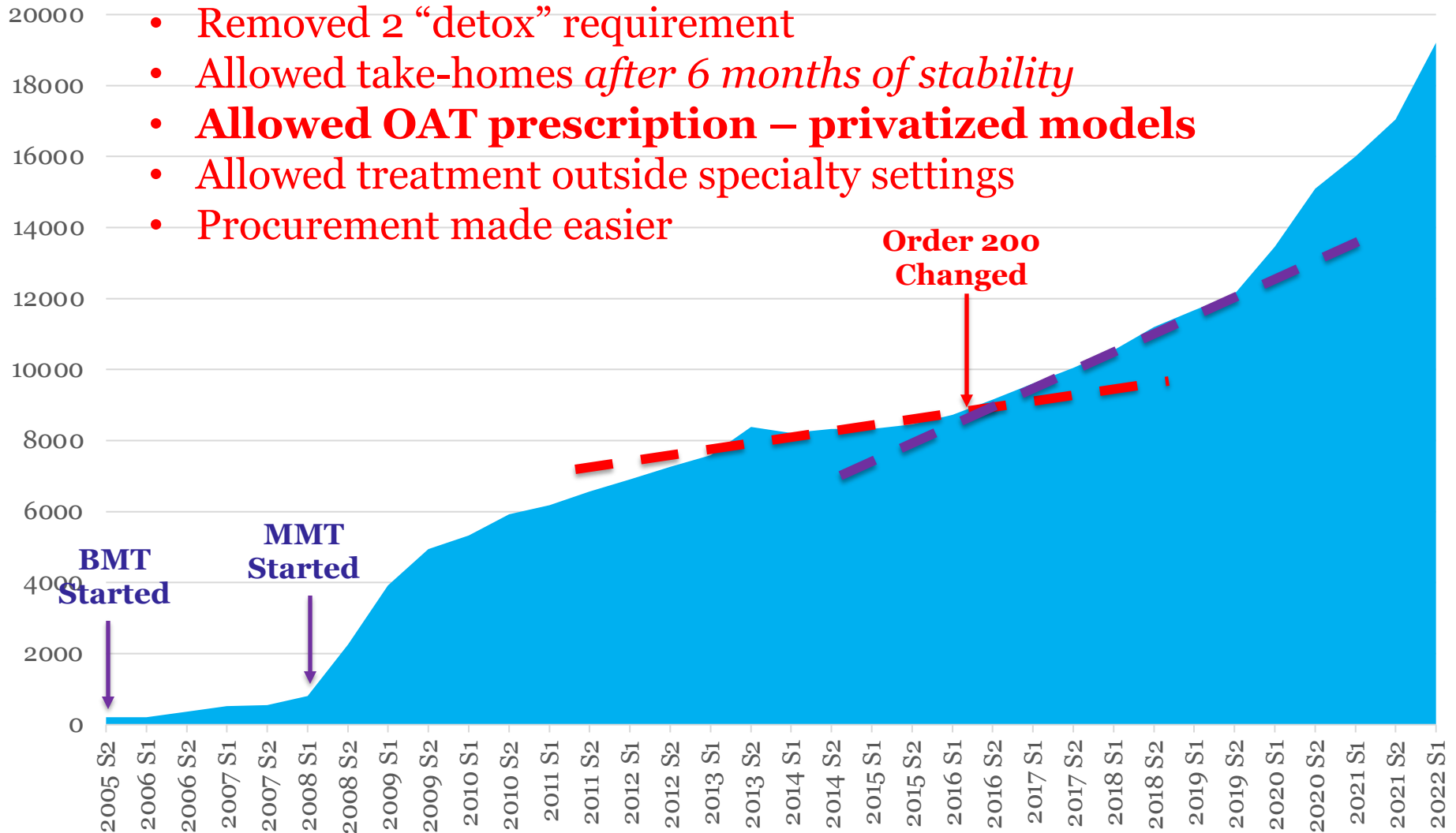
NIATx Inputs	Engaged Collaborators N=8	Independent Operators N=9	Delayed Adopters N=8
Leadership (Chief Narcol participation)	High (100%)	High (56%)	Low (100%)
Collaboration Climate Scale	High (75%)	Low (67%)	High (50%)
Independent risk-taking scale	Low (63%)	High (89%)	Low (100%)
Trip 1 (identified as a leader)	Yes (40%)	Yes (80%)	Yes (0%)
Trip 2 (succeeded with Challenge 1)	Yes (50%)	Yes (67%)	No (100%)

Example of Independent Operator

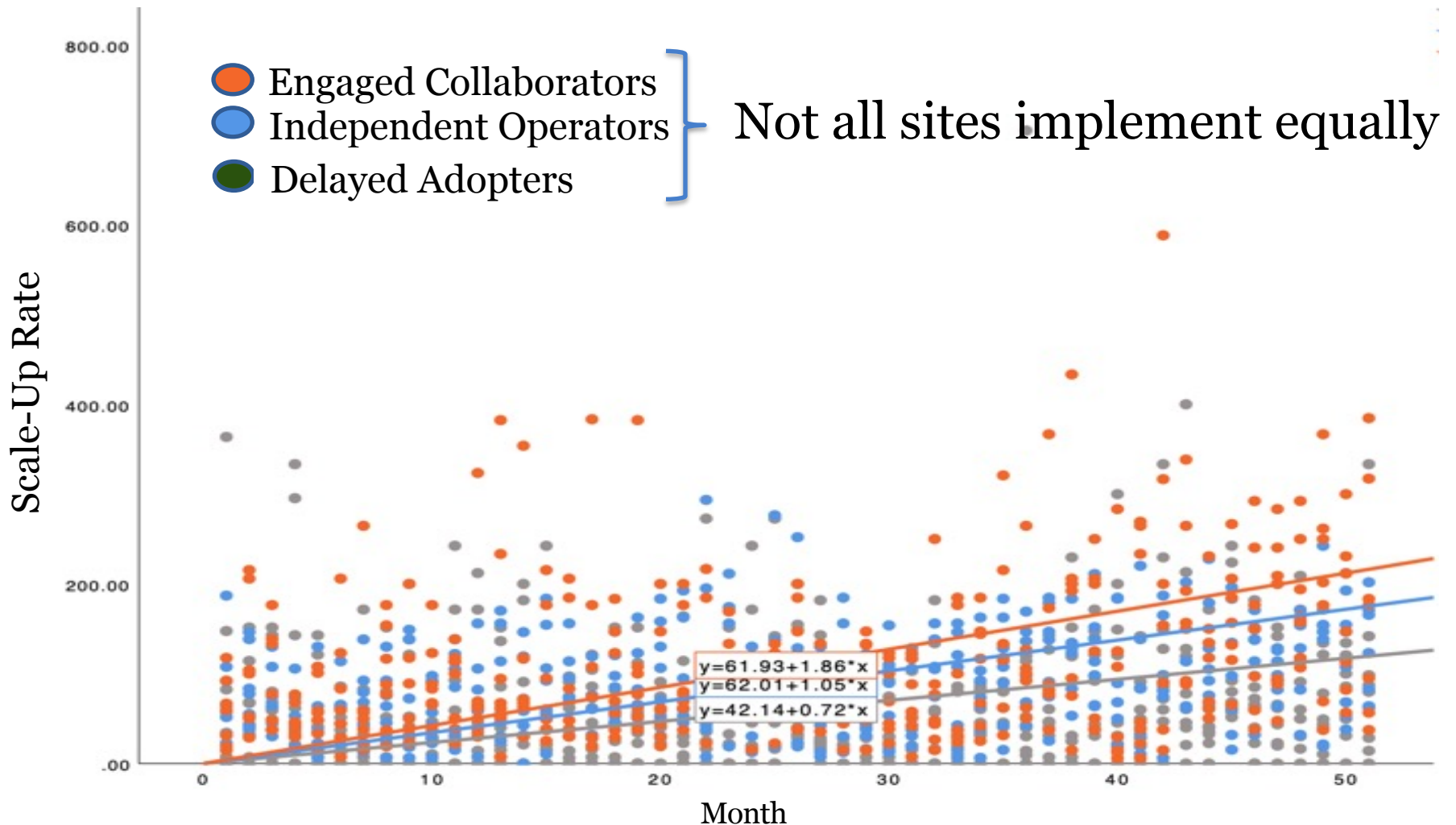
- Interested and willing to do anything new
 - Buprenorphine prescriptions
 - Take-home dosing
- Knows it all – no need to learn from others
 - Doesn't show up for meetings
 - Lower levels of collaboration
 - Doesn't learn or share new ideas
- Not seeking support from peers

OAT Scale-up in Ukraine – Order 200 as a Disruptor

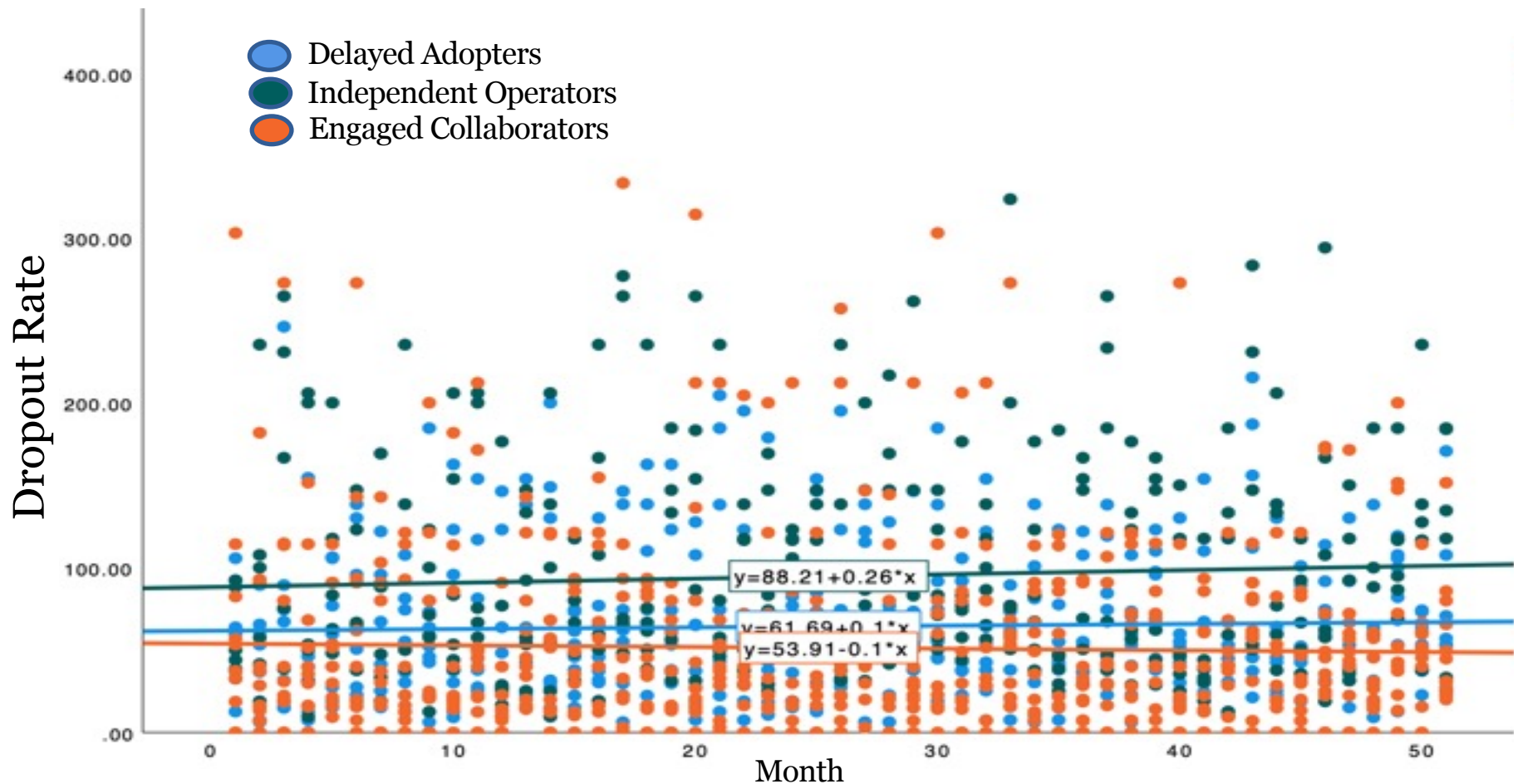
- Removed 2 “detox” requirement
- Allowed take-homes *after 6 months of stability*
- **Allowed OAT prescription – privatized models**
- Allowed treatment outside specialty settings
- Procurement made easier



NEW Admission Rate (Entry) by Month by Three Clusters after Order 200 Changed

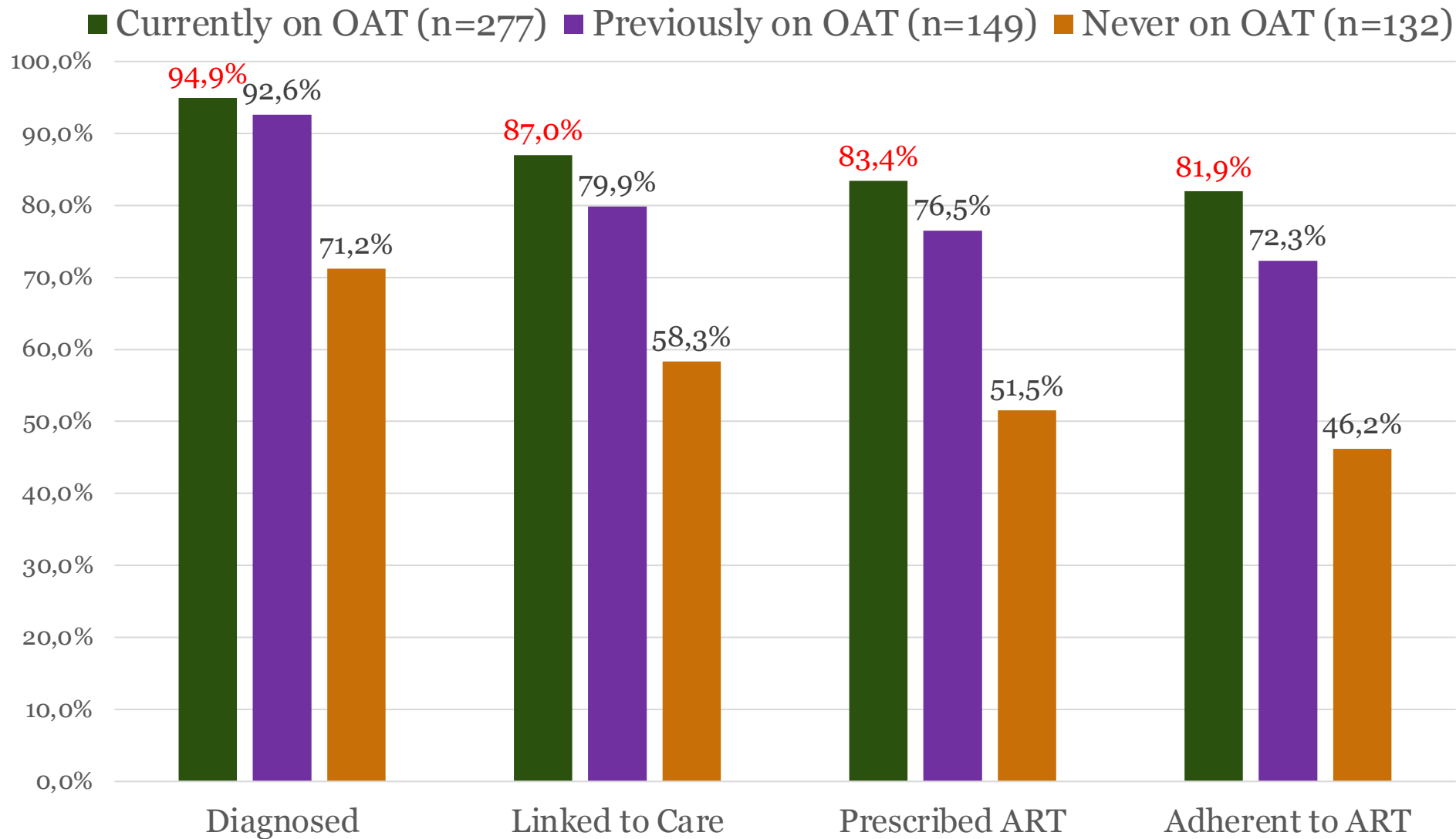


Dropout Rate by Month by Clusters After Order 200 Changed



HIV Treatment Cascade Among PWID (N=558)

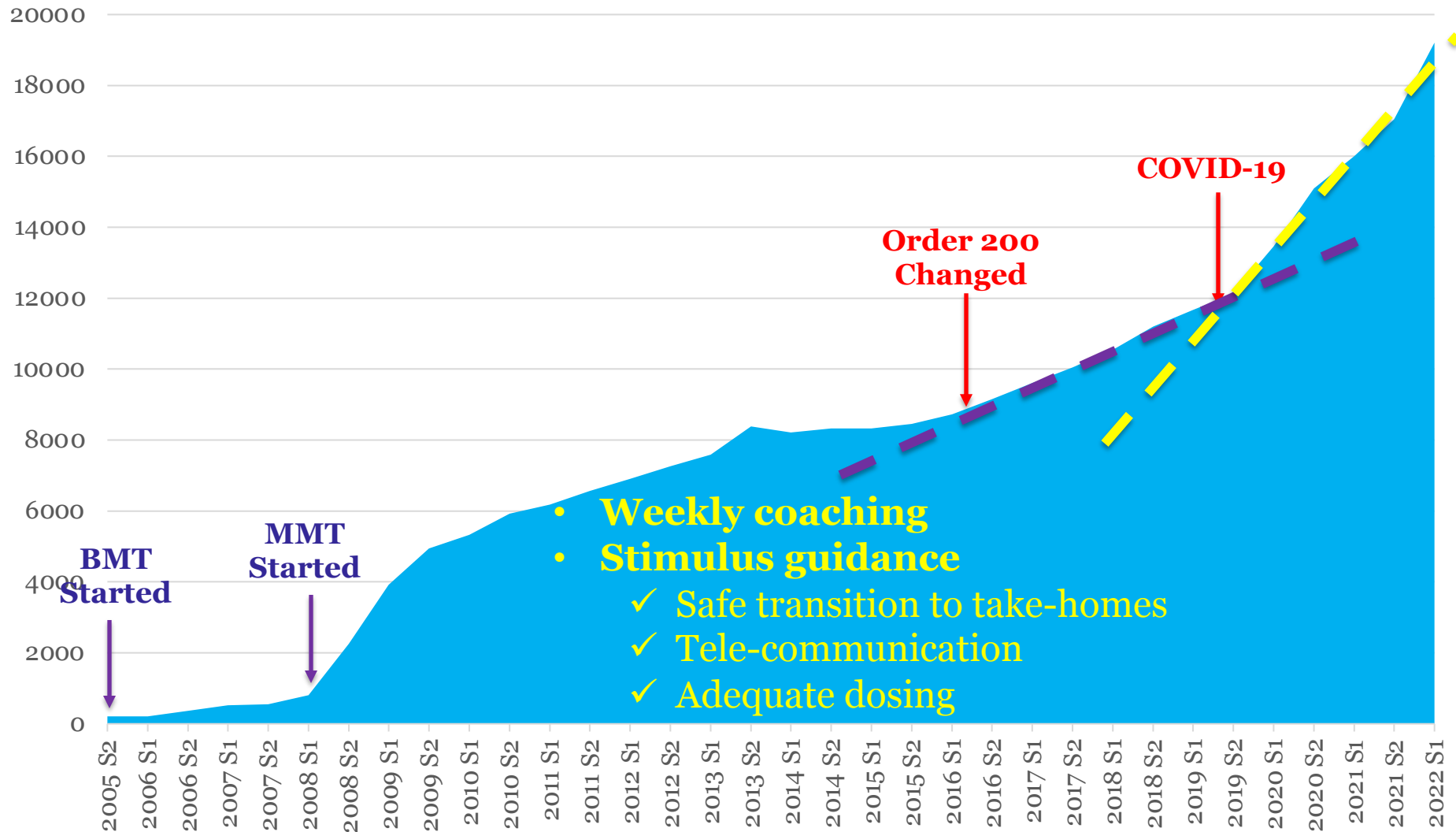
Meets the 95-95-95 UNAIDS Treatment Targets



Disruptions due to the COVID-19 Pandemic



OAT Scale-up in Ukraine – COVID-19 as a Disruptor

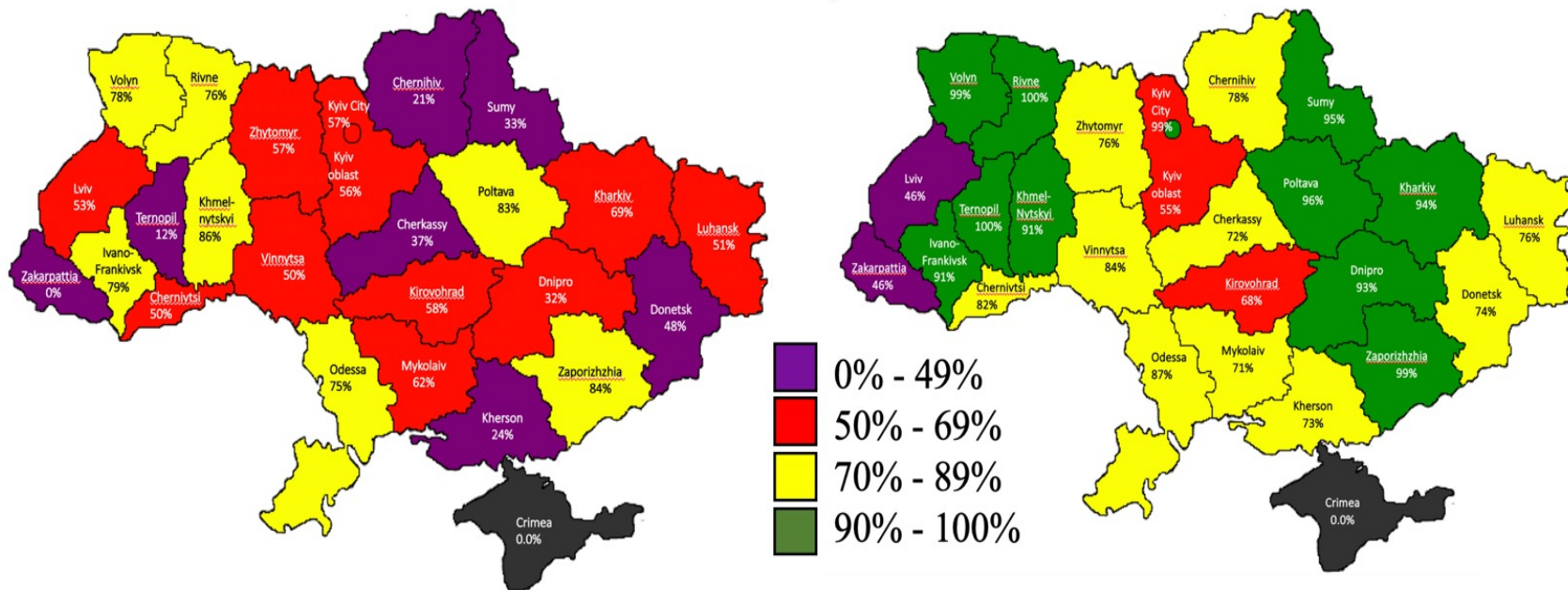


Service Delivery Disruptions – COVID

A. March 1st, 2020 (mean = 53.4%)



B. June 1st, 2020 (mean = 84.4%)

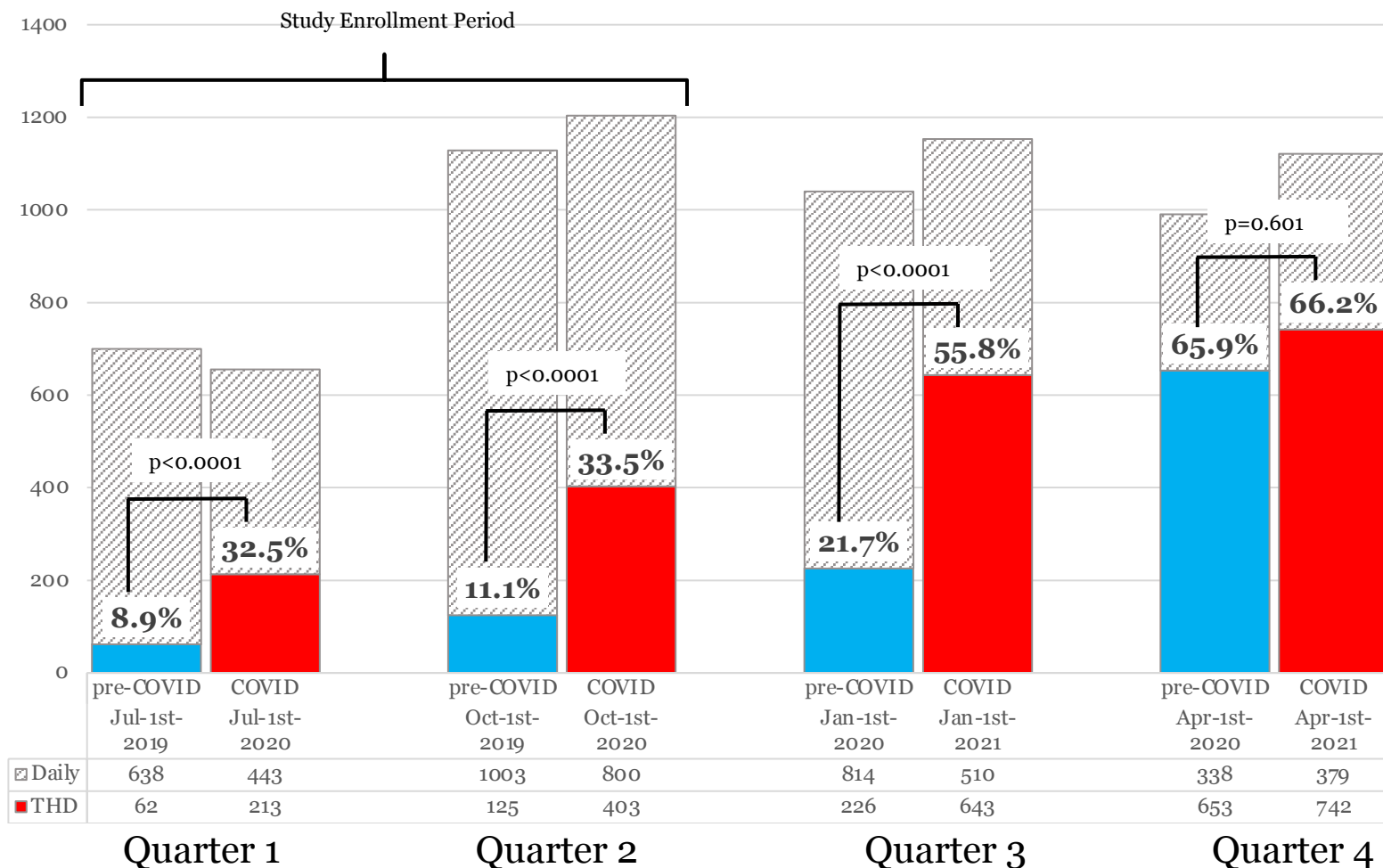


	Pre COVID-19 (Annualized)		COVID-19 (Annualized)		Difference (Annualized)	
	Contacts	Hours	Contacts	Hours	Contacts	Hours
Dose						
3 Days	2,889,395	240,783	2,160,743	180,062	728,652	60,721
7 Days	2,376,220	198,018	1,412,268	117,689	963,952	80,329
10 Days	2,260,756	188,396	1,243,861	103,655	1,016,895	84,741

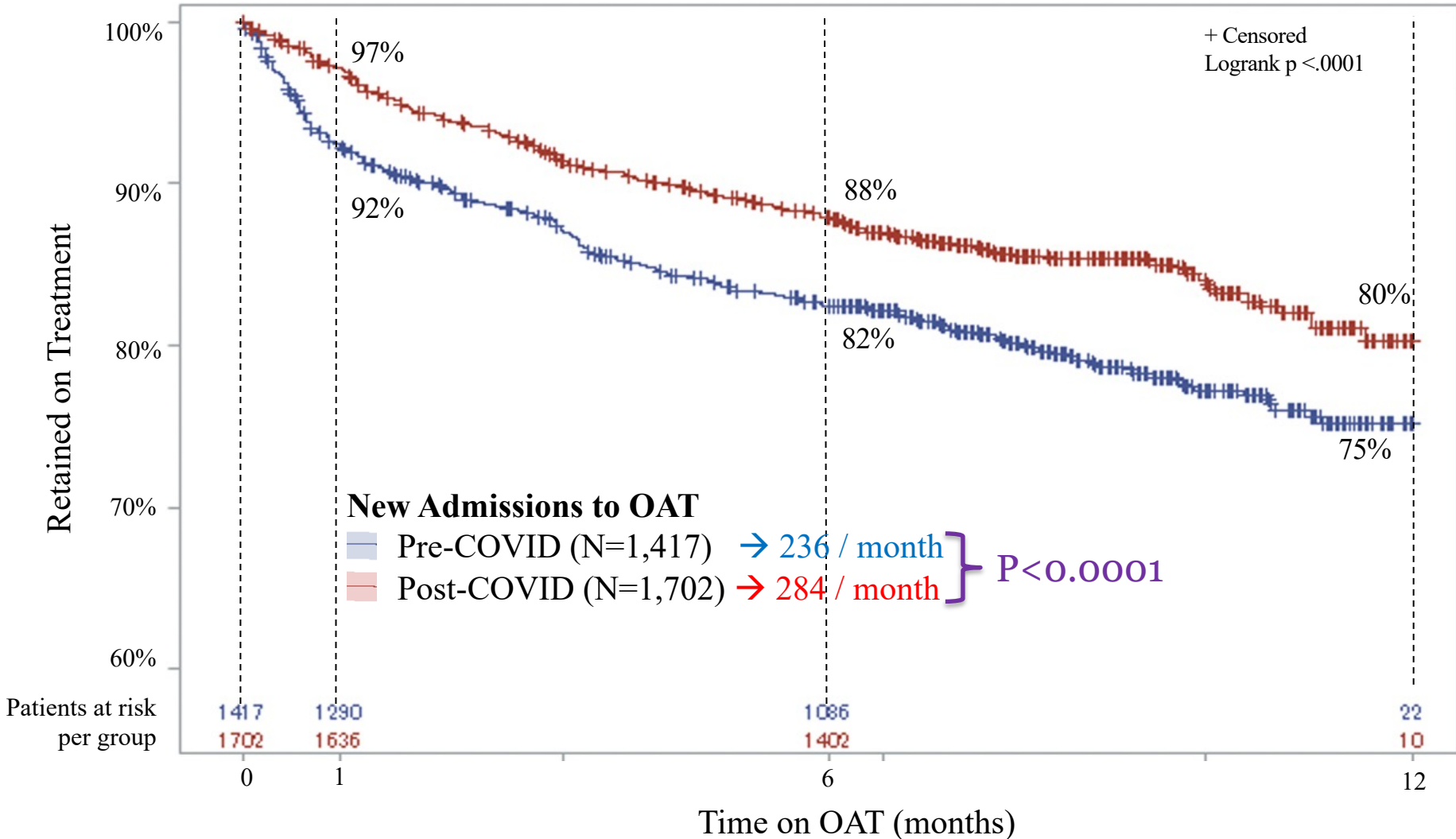
Mortality: 2019 (4.3%) --- Pre-COVID (5.0%) --- COVID (4.2%)

Meteliuk A et al, JSAT, 2021

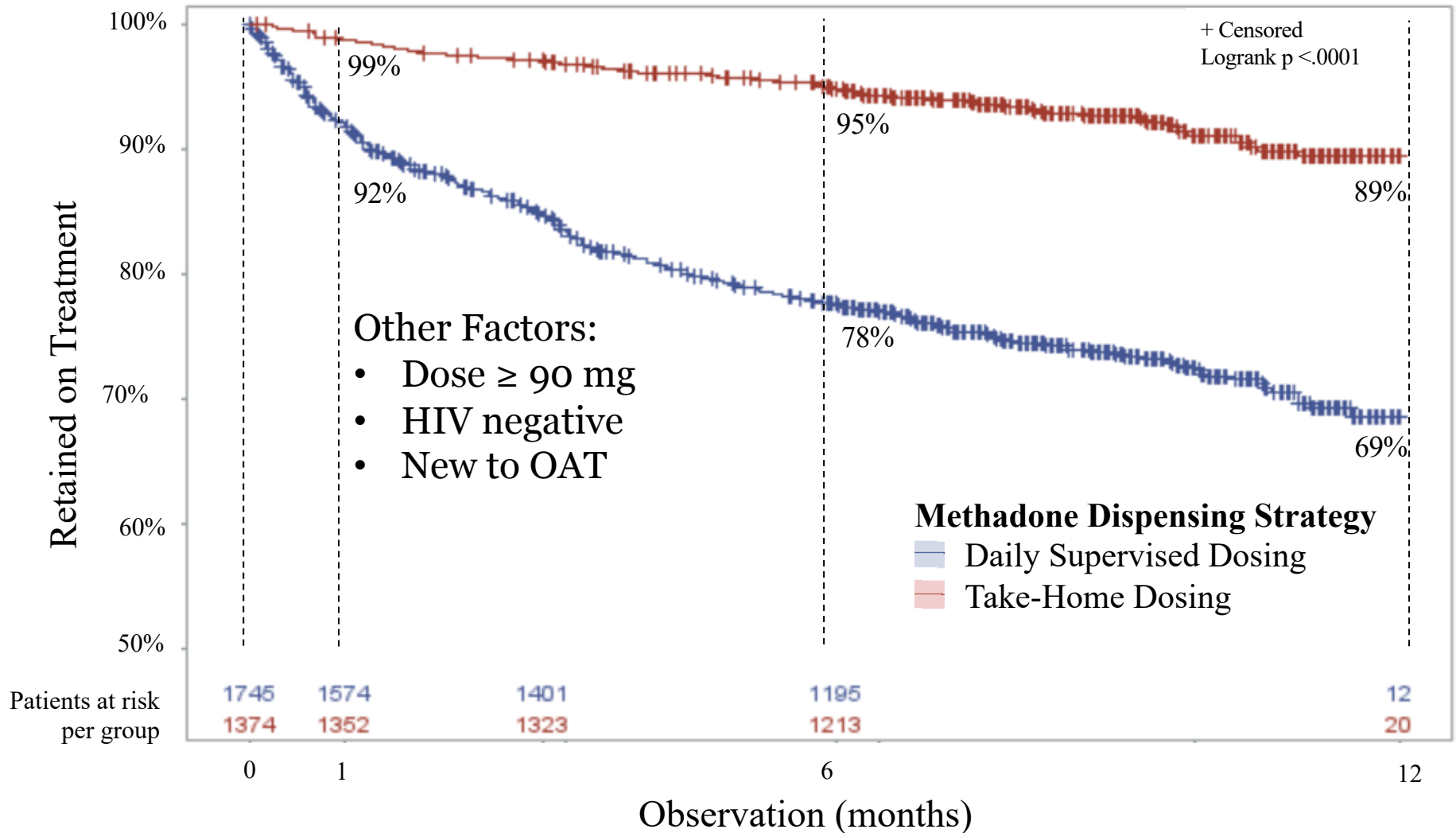
Proportions of Patients Newly Enrolling on Methadone and Receiving Take-Home Dosing During the Pre-COVID and COVID Observation Periods



Retention on OAT over 12 months for newly admitted patients, PRE- vs POST-COVID periods (N=3,119)



Transition to Take-Home Dosing Contributed most to Treatment Retention (N=3,119)





Survival was unchanged!



VIEWPOINT | [VOLUME 7, ISSUE 5, E482-E484, MAY 01, 2022](#)

Extending a lifeline to people with HIV and opioid use disorder during the war in Ukraine

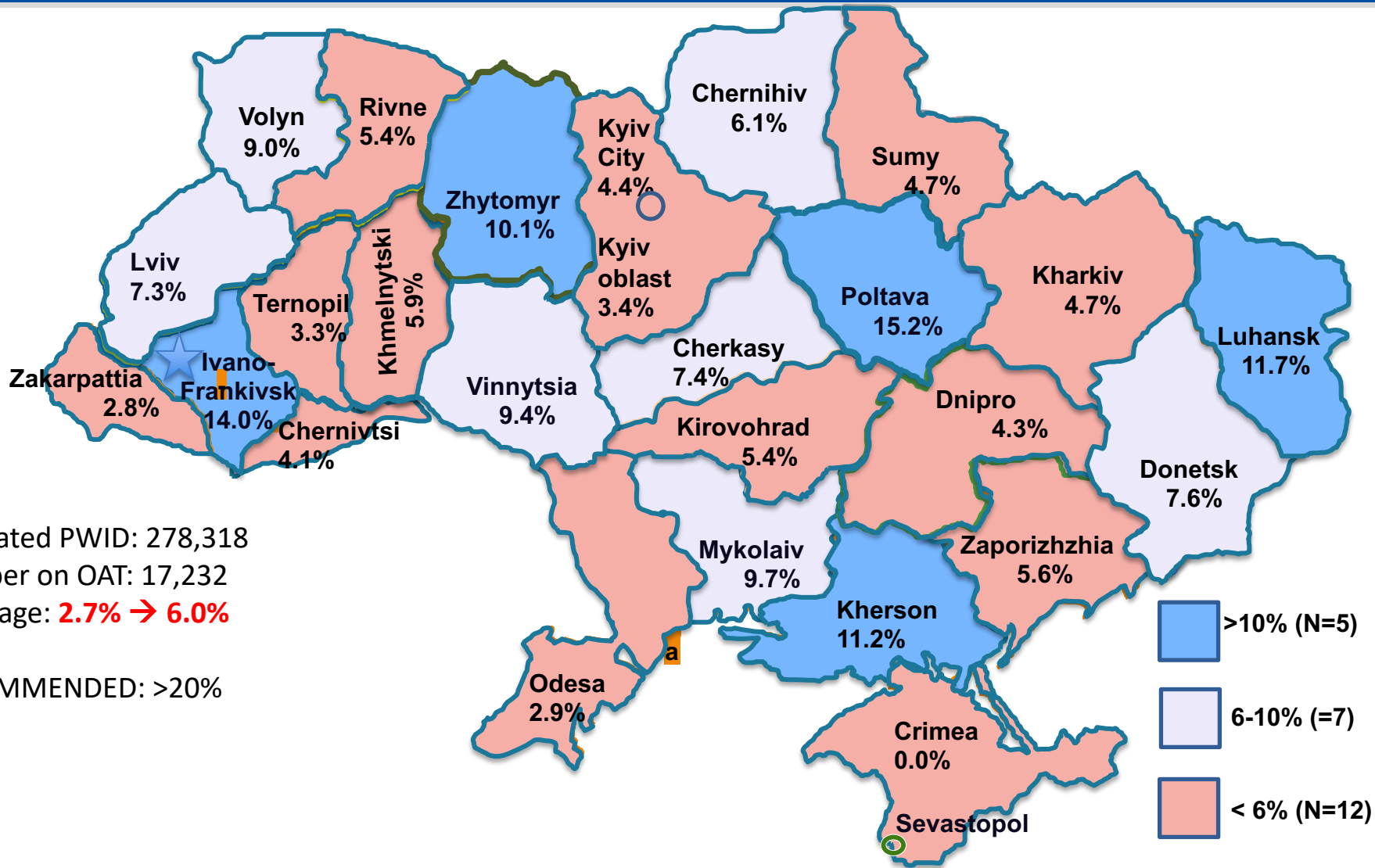
[Prof Frederick L Altice, MD](#)   • [Daniel J Bromberg, MSc](#) • [Sergii Dvoriak, MD](#) • [Anna Meteliuk, MPH](#) • [Iryna Pykalo, MPH](#) • [Zahedul Islam, MBA](#) • [Lyu Azbel, PhD](#) • [Lynn M Madden, PhD](#) • [Show less](#)

February 24, 2022

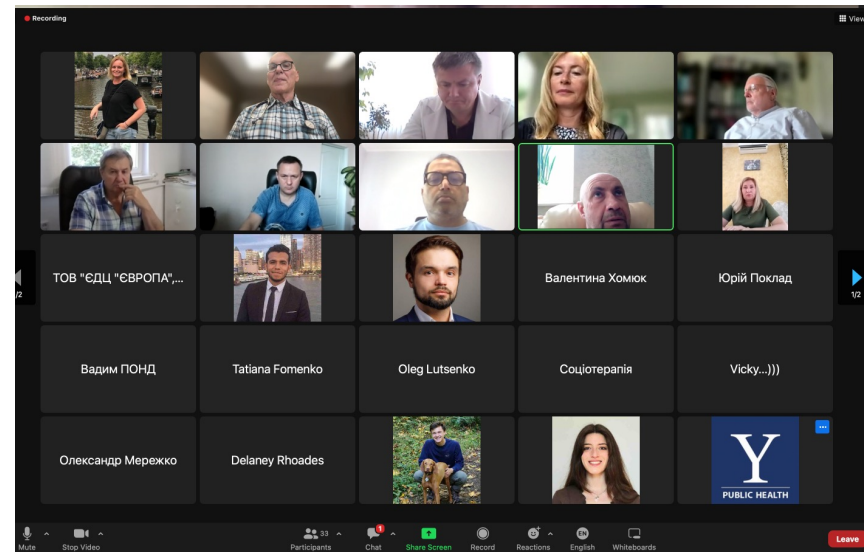
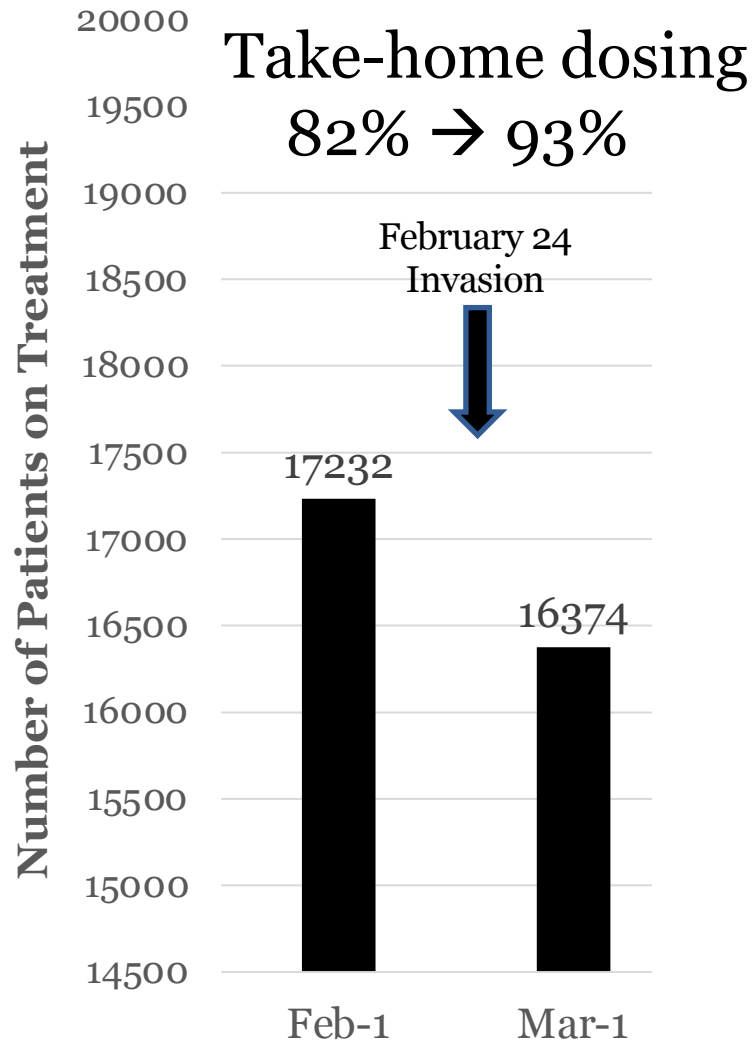
Lancet Public Health, 2022



Governmental Clinics OAT Coverage in Each Region (February 1, 2022)



OAT Scale-Up After the Invasion by Russia



2022

Altice FL, Lancet Psych, 2022

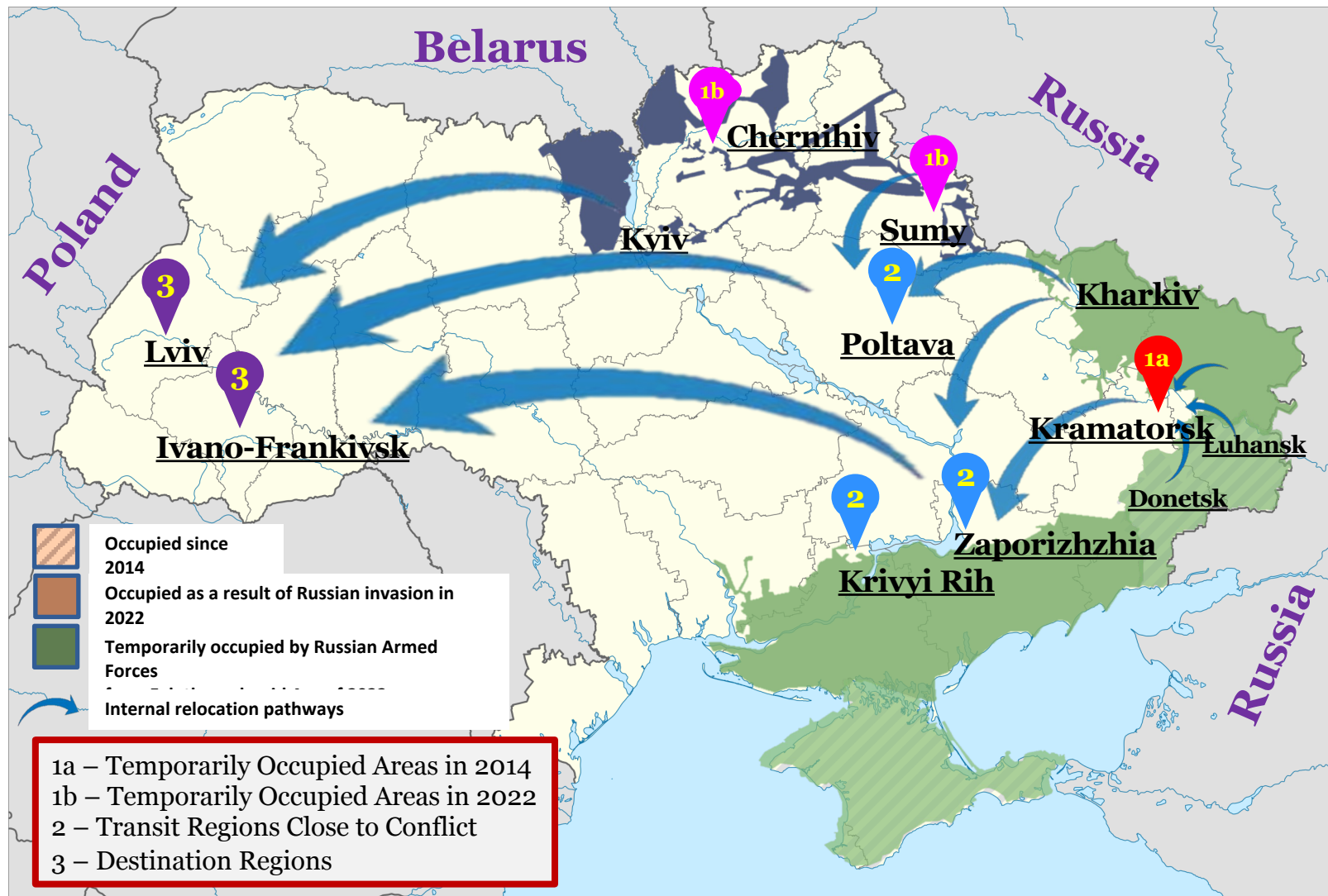
Ukraine: Early Responses

- Operating collaborative learning sessions with the Chief Narcologists in each region to update on emerging strategies (NIATx)
 - 20 OAT sites shut down (all of Luhansk and much of Kherson and Donetsk)
 - Ministry of Health issued emergency guidelines allowing patients to have up to **30 days of take-home** medications (supplies variable) and for a 30-day prescription (free) to pick up at pharmacies
 - Variable dispensation of larger quantities (most only 10-14 days)
 - Some starting dosing tapers
 - Collaboration between governmental and private OAT clinics
 - Massive amounts of patients in **private clinics** without access to OAT
- Strategies to communicate with patients
 - Patients afraid to travel (“yoked to treatment”)
 - Online message board for pharmacies with medication
 - Online message board to let clients know where OPEN OAT clinics are located
 - Closed social media chat groups (WhatsApp, Viber, Telegram)
 - Crowdsourcing to announce when supplies are available in a given location

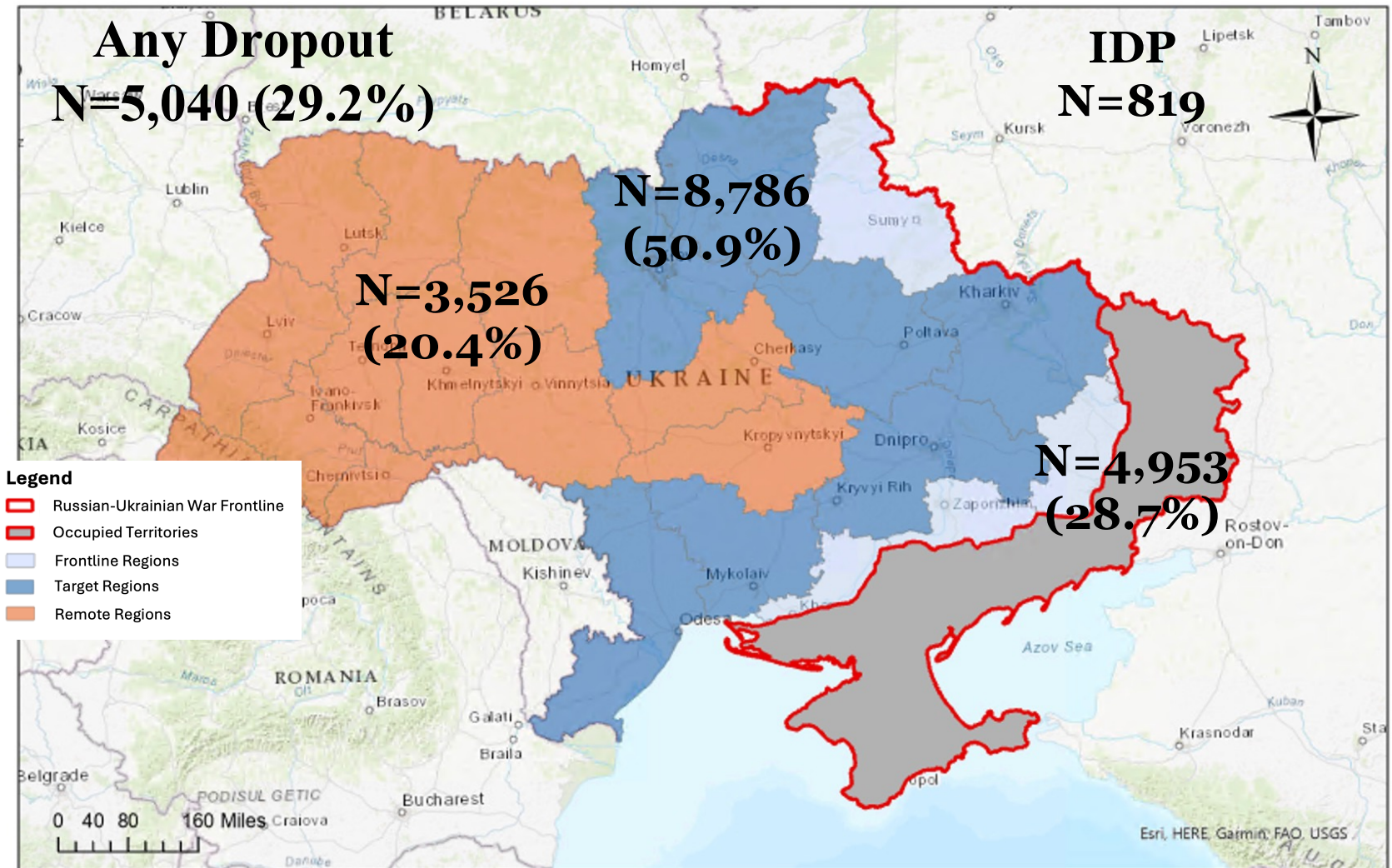
Major Implementation Disruptors

- Supply chain logistical constraints to occupied and some conflict regions
- Introduction of new substances → interrupted heroin supply chains
- Large numbers of internally displaced persons → increased demands on staff
- Prioritizing local needs
 - Maintaining existing governmental patients
 - Accepting transfers of internally displaced governmental patients
 - Accepting private OAT patients (local and displaced)
 - Enrolling new patients

Differential Responses to OAT Delivery (April 15, 2022)



Categorizing Regions in Ukraine During War (N=17,265)



Factors Associated with the Treatment Discontinuation: Frailty survival model with internal time-dependent covariate of relocation

	Charactersitics	AOR	95% CI		p-value
Displacement Status	Remote Region Local	Ref.			
	Target Region Local	1.31	1.27	1.35	<0.001
	Frontlione Region Local	6.91	6.87	6.95	<0.001
	Remote Region IDP	5.95	5.88	6.02	<0.001
	Targe Region IDP	6.81	6.74	6.88	<0.001
	Frontline Region IDP	16.8	16.62	16.98	<0.001
Medication	Methadone	Ref.			
	Buprenorphine	1.12	1.08	1.16	0.01
Baseline Dose	Suboptimal	Ref.			
	Optimal	0.79	0.76	0.82	<0.001
Baseline type of Receipt	Daily	Ref.			
	Take-Home Dosing	0.72	0.68	0.76	<0.001
Sex	Male	Ref.			
	Female	1.17	1.13	1.21	<0.001
HIV Status	Negative	Ref.			
	Positive	1.07	1.04	1.1	0.02
IDU Duration	< 13 years	Ref.			
	13+ years	0.98	0.95	1.01	0.72

COMMENT | [VOLUME 20](#), 100490, SEPTEMBER 01, 2022

Medications for opioid use disorder during war in Ukraine: Innovations in public and private clinic cooperation

[Daniel J. Bromberg](#) • [Lynn M. Madden](#) • [Anna Meteliuk](#) • [Roman Ivasiy](#) • [Samy J. Galvez de Leon](#) •

[Konstantin Klyucharyov](#) • [Frederick L. Altice](#)   • [Show less](#)

CORRESPONDENCE | [VOLUME 26](#), 100583, MARCH 2023

Medications for opioid use disorder during the war in Ukraine: a more comprehensive view on the government response—Authors' reply

[Daniel J. Bromberg](#) • [Lynn M. Madden](#) • [Anna Meteliuk](#) • [Roman Ivasiy](#) • [Samy J. Galvez de Leon](#) •

[Konstantin Klyucharyov](#) • [Frederick L. Altice](#)   • [Show less](#)



International Women's Day - 2022

Social Workers at a Harm Reduction Site



We
Remember
Crimea
Luhansk
Donetsk

Continue Life
Without
Interruptions

OAT = Life

Slava Ukraini!

